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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,013	11/10/2003	Alexander I. Gilevich	1418	6212

7590 07/25/2005

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EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/706,013

Applicant(s)

GILEVICH, ALEXANDER I.

Examiner

Elizabeth Keaney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 6 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 3 is objected to because of the following informalities:

- line 6: "the electrical solenoid"; should be --an electrical solenoid--.
- line 7: "an electrical solenoid"; should be --the electrical solenoid--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US Patent 4,195,229).

Re claim 1: Suzuki discloses, in figures 1 and 7 and throughout the disclosure, a shutter-shield system, for reducing potential human risk of cumulative effects from extraneous x-radiation, applied to a collimator including a collimator housing configured with a fixed working aperture (2) and deployed in conjunction with an x-ray tube (1) for a designated inspection purpose conducted totally within an overall shield housing, comprising:

- a shutter-shield plate (18) configured with a shutter aperture (65,66) made generally similar to the fixed working aperture in size and shape (column 5, lines 41-42);
- a shutter support structure (71,72) made and arranged to retain the shield shutter plate constrained with ability to shift (68,69) within a predetermined travel range (73) between (1) an open-shutter condition wherein the shutter aperture is aligned with the fixed working aperture so as to allow x-radiation through a thus combined aperture for the designated inspection purpose and (2) a closed-shutter condition for standby purposes wherein offset displacement of the shutter-shield plate causes the shutter aperture to be similarly displaced offset from the fixed working aperture so as to in effect close the combined aperture and thus substantially contain x-ray radiation within a region of the collimator housing bounded by the shutter-shield plate (column 3, lines 15-23); and
- a drive mechanism (68,69) attached to collimator and operationally connected to the shutter-shield plate, made and arranged to actuate transition between the two shutter conditions in response to a control signal (column 4, lines 24-28).

Re claim 2: Suzuki discloses the drive mechanism and the shutter-shield plate are configured and arranged to deploy one of the two shutter conditions whenever the

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drive mechanism is powered and to deploy the other of the two shutter conditions whenever the mechanism is not powered (column 4, lines 21-28).

Re claim 6: Suzuki discloses, in figure 7 and throughout the disclosure, a pair of ball-bearing slide assemblies (71), each having a first member attached to the shutter-shield plate (18) and a second member attached to the collimator housing, made and arranged to provide the shutter-shield plate with freedom of movement, but only in a predetermined linear direction and within the predetermined travel range (column 6, lines 12-15).

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Mizusawa et al. (US Patent 5,172,402; hereinafter Mizusawa).

Mizusawa discloses, in figure 2 and throughout the disclosure, a shutter-shield system, for reducing potential human risk of cumulative effects from extraneous x-radiation, applied to a collimator including a collimator housing configured with a fixed working aperture (203) and deployed in conjunction with an x-ray tube for a designated inspection purpose conducted totally within an overall shield housing, comprising:

- a shutter-shield plate (221) configured with a shutter aperture (222) made generally similar to the fixed working aperture in size; and
- a shutter support structure (107) made and arranged to retain the shield shutter plate constrained with ability to shift (152) within a predetermined travel range between (1) an open-shutter condition wherein the shutter

aperture is aligned with the fixed working aperture so as to allow x-radiation through a thus combined aperture for the designated inspection purpose and (2) a closed-shutter condition for standby purposes wherein offset displacement of the shutter-shield plate causes the shutter aperture to be similarly displaced offset from the fixed working aperture so as to in effect close the combined aperture and thus substantially contain x-ray radiation within a region of the collimator housing bounded by the shutter-shield plate (column 6, lines 53-65); and

- a drive mechanism (151,152) attached to collimator and operationally connected to the shutter-shield plate, made and arranged to actuate transition between the two shutter conditions in response to a control signal (column 7, lines 14-34).

### ***Allowable Subject Matter***

Claims 3-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record discloses a shutter shield system comprising all of the features in claim 1. However, the prior art fails to teach or fairly suggest a shutter shield system further comprising spring biasing means, operationally connected to the shutter-shield plate, made and arranged to urge the shutter-shield plate to move to a

first end of the travel range whenever an electrical solenoid is not powered; and the electrical solenoid, having a plunger operationally connected to the shutter-shield plate, made and arranged to urge the shutter-shield plate to move to a second end of the travel range, opposite the first end, whenever the electrical solenoid is powered, as claimed in claim 3. Claims 4 and 5 are allowable by virtue of their dependency.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 4,366,576 discloses the current state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.

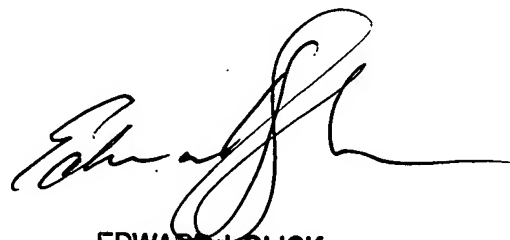
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER